```
Page No.
          352
1
2
            PROCEEDINGS
3
     THE COURT: Good afternoon, ladies and gentlemen. We
4 are about to begin the Horowitz case.
     Before we do so, I'd indicated to you, and you do have
  note pads and the appropriate utensil to write on, those
6
7
  note pads, you may use them as you see fit. You don't have
8
  to take notes unless you want to. But if you do decide to
9 take notes, be sure that your note-taking doesn't interfere
10 with your ability to observe the witness or listen to the
11 lawyers and be aware of what's going on.
      And, as I told you before, your notes are yours, and
12
13 you're not to share them with anybody. They are
14
   confidential, and you can either take them with you each
15
   time you leave or you can leave them on your chair, and
16 nobody's going to come and read them.
17
      Also, you may note any questions on your paper that
18 you might have for a particular witness. When the lawyers
19 are through asking questions of a witness, if any of you
20 have any questions, you can write the question out, give it
   to me, and I may ask it. I say "may," because it depends if
21
22 it's relevant and if it's admissible, leads to admissible
23 evidence.
24
       If I think that it's improper, I'm not going to ask
25 the question at all. Don'ts be offended, in case your
26 question is not asked. The attorneys can also object to the
27 question, if they want to. They can do that during the
28 course of the trial. That's part of their job, to see that
Page No.
          353
1 just evidence that is relevant to this case and bears on the
2 issues here is admitted.
3
     And so if they think that a particular question is not
4 appropriate or not properly worded, they will object to it.
5 But don't be offended. It's nothing personal at all. It's
  objected to or not given for some legal reason. Okay?
7
     As I told you before, you're not to talk to the
8
  attorneys in any way, shape or form. Don't even ask them
9 the time of day or tell them it's a beautiful day and good
10 morning, or whatever. Just ignore them, except here in
11 court, you pay attention to them.
      The way we try a case, in very general terms, is that
12
13 the plaintiff makes an opening statement. And the reason
14
   that the plaintiff goes first -- and I think it was told to
15 you before -- is because the plaintiff has the burden of
16 proof. They have to prove what they say has been done to
17 them. They have to prove their case from A to Z, all of it,
18 unless the defense, for some reason, concedes a point. I
19 don't know whether that will occur or not. It may.
20
      But anyway, they have to prove their case, so they can
21 go first. The attorney makes an opening statement. That
22 opening statement primarily is to tell you what they are
23 going to prove. Then you can make note of it. But remember
24 what the attorney says. At any time, true to every attorney
25 here, what they say is not evidence unless they take the
26 oath and sit on the witness stand and testify as a witness.
27
       So you listen to what they say and you see if it makes
28
   sense. And particularly with respect to the opening
          354
Page No.
1 statements, you note what Ms. Chaber says and what she's
2 going to prove, and then make a mental note of it, or write
3 it down. And if she doesn't do it, she's failed in that
```

4 regard. And I assume that whatever she says to you, she 5 thinks and intends to and hopes to prove to you. The same will be true with the defense. They can make 7 an opening statement when she's through, or they can wait 8 until she's all through with her case, and then they can 9 make their opening statement. That's up to them to decide. Well, anyway, after the opening statements are made, 10 11 the witnesses come forth, and the plaintiffs' witnesses 12 primarily will go first. Maybe we will call a witness out 13 of order, if it's necessary to accommodate a witness because 14 of some time reason or because the witness has some other 15 kind of an obligation. So we may take them out of order. 16 If that occurs, why, we will let you know. But whoever calls a witness asks the witness the 17 18 questions to begin with, and then the other side may 19 cross-examine the witness, and there may be redirect 20 examination, so it goes back and forth a bit. And when they are all through, as I said, then it's 21 22 your opportunity, but you have to write your question out, 23 because you're not lawyers, and we don't expect you to word 24 the question right, but you may say, "There's something 25 missing here, " or "I didn't hear it, " or something, so you want to write it out. That's fine. And that's why we do 26 27 that, so you know as much as there is going to be available 28 from that particular witness. Page No. 355 There's also going to be what we call demonstrative 1 2 evidence, and some of that will even start with the opening 3 statement. There will be some slides, some photographs, 4 some written documents, and perhaps other things, models. I 5 don't know the full extent of it. But that's all 6 demonstrative evidence. And, of course, if it's evidence, 7 then you consider it. But whatever, as I said before, 8 whatever the attorney says in this matter by any attorney is 9 not evidence. When all of the witnesses are through testifying and 10 all of the demonstrative evidence is submitted to you, you 11 12 know, you may look at a document, it will be passed around, 13 or you may get a glancing view of it, so to speak. You can 14 take it with you when you deliberate in the jury room, 15 examine it up and down, back and forth, round and round, any 16 way you want to. But when all of that evidence is in, the 17 attorneys are going to argue. 18 Again, they are going to be summing up their case, and 19 we call it argument. Plaintiff goes first, then the defense 20 comes and the plaintiff gets to close because again, 21 plaintiff has the burden of proof. So they go twice in 22 closing. 23 When that is done, generally I will instruct you with 24 respect to all the law that applies to this case, if I 25 haven't previously instructed you about the law. You take 26 those written instructions with you. You can look at them 27 at your leisure, when you're all together. The same is true 28 with respect to the evidence. Page No. 356 Then, for the first time, you can discuss the case, 2 the witnesses, the evidence, what you think of it, what 3 probative value it has, what it means, put it all together 4 and come up with a verdict. And you know, that's why you're 5 here, is to try to arrive at a verdict if you can do so 6 based on the facts, based on the law, and in good 7 conscience. That's why we want you to decide this case. 8 It's a heavy responsibility. But remember, keep your common

9 sense about you. And during the course of this trial, day after day 10 11 after day, as I told you before, will generally start at 12 9:00 o'clock, go to 12:00, and in between we will have a 13 recess, about fifteen minutes. Again, you can't talk to 14 anybody about the case during that recess. If, for some reason, you need a recess before I call 15 it -- I may not call it just exactly in the middle 16 17 somewhere, I'll call it when they are through with a witness 18 and an appropriate time, so there's an appropriate break, 19 but, if for some reason, you need to go out, you need a 20 drink of water, you need to go to the bathroom, or whatever 21 it is, just raise your hand. And if nobody pays attention, 22 say: Just a minute, and you can tell us what you want. And 23 then we will have a recess for you. 24 And if you get sleepy, don't. Because we all do at 25 times, you know, after lunch, and it gets quiet in here and 26 warm, and somebody next to you starts breathing heavily, 27 give them a little jog. And if you do it yourself, pinch 28 yourself, because we want you to all pay attention. It will Page No. 357 1 happen to all of us. I once had an attorney who went to 2 sleep during the course of the trial, and it was very 3 embarrassing. When I noticed it, why, we declared a recess. 4 But it can happen to anybody. So don't be offended. If you 5 want to go out and wash your face with water, let us know. 6 Ms. Chaber? MS. CHABER: Could I have a moment? 7 THE COURT: Sure. 8 9 MS. CHABER: I apologize to the Court, but I don't 10 know where else to put this, and it may block your view a 11 little bit, Your Honor. 12 THE COURT: That's all right. 13 I should note that all of the jurors are here and all 14 of the attorneys. I don't know whether any party is here 15 for the defense or not. 16 MR. OHLEMEYER: I'll introduce them, Your Honor. 17 MS. CHABER: May it please the Court, Counsel, ladies 18 and gentlemen of the jury. 19 When you heard the name Lorillard Tobacco Company and 20 you heard that this was a case that involved cancer, you may 21 have been thinking we were talking about something like 22 this. My client, Milton Horowitz, quit smoking 32 years ago. 23 24 This is not a case about this end of the cigarette. It's a 25 case about this end of the cigarette. It's a case about the 26 filter, or the predecessor to this Kent filter. Kent with the Micronite filter which, from its inception in 1952 to 27 28 1957, contained asbestos. Page No. 358 Asbestos is what causes mesothelioma. Tobacco does 2 not cause mesothelioma. Tobacco smoking does not cause 3 mesothelioma. Asbestos does. And from 1952 to 1957, there 4 was asbestos in the Kent Micronite filter. These two defendants, Lorillard and Hollingsworth and 6 Vose, are the only companies who have ever put asbestos in a 7 product that was made and intended to be inhaled directly 8 into your lungs. 9 They not only put asbestos in the filter, they put 10 what's called Crocidolite asbestos. It looks a little like 11 crocodile, but it's Crocidolite, and it's a type of 12 asbestos. It's called blue asbestos, and the reason it's 13 called blue asbestos is because it's actually blue colored.

14 It comes from South Africa, and it is considered the most 15 potent, the most poisonous, and the most toxic of all forms 16 of asbestos. 17 This is a case about the big lie that these companies 18 told the public, told Milton Horowitz in their ads, in their 19 TV advertising. You have to go back to the '50s, TV 20 advertising, \$64,000 question, newspapers, magazines and, 21 yes, even medical journals. And they said such things as: 22 Only Kent has the Micronite filter made of pure, dust-free, 23 and completely harmless material. This is from the journal 24 of the American Medical Association. "Which cigarette gives you the greatest health 25 26 protection?" Advertising Magazine recognized this campaign 27 as the best hard-sell advertising campaign in the 1950s. 28 They created a demand for what was perceived as health Page No. 359 1 protection, and then they went about filling that demand. 2 But the public didn't know that there was asbestos; that the 3 Micronite filter meant asbestos. And the public in the 1950s, even if they knew that 5 fact, didn't know that asbestos was hazardous. But these defendants did. In 1944, the Journal of the American Medical Association came out with an editorial about 8 environmental cancers, and asbestos was listed as one of the 9 suspected carcinogens. 10 In 1949, the Journal of the American Medical 11 Association, the same place that they advertised in in the 12 1950s, in their editorial recognized that asbestos was 13 associated with asbestosis and lung cancer. 14 The Journal of the American Medical Association's 15 editorial sounded an alarm, an alarm which was ignored by 16 these companies. They manufactured Kent with an asbestos 17 filter, something which had no medical usefulness, something 18 which was not a military product, did not have any military 19 usefulness, and was not for the public good. They acted in 20 conscious disregard of the health and safety of the public, 21 and they did it for one reason and one reason only, and that 22 was to make money. 23 By the early 1950s, medical science was already seeing 24 tumors of the pleura, which is the lining of the lungs, 25 which is the disease that Milton Horowitz has. Mesothelioma 26 is a tumor of the lining of the lungs. And they were seeing 27 it in conjunction with people who were exposed to asbestos. 28 What the doctors did not know back then was that it Page No. 360 1 was actually a separate disease, something distinct from 2 lung cancer, something different than lung cancer. That 3 took until the 1960s until that was known and accepted that 4 mesothelioma was actually a separate disease from lung 5 cancer. In 1953, Lorillard hired the editor of the Journal of the American Medical Association, Dr. Morris Fishbein. He'd 7 8 been the editor back in 1949 when that editorial was 9 published about asbestos and cancer. And they paid him more 10 than \$25,000 a year. And the first thing that they had 11 Dr. Fishbein do was write a book on smoking and health. And 12 Dr. Fishbein, in his chapter on cancer, said it was still an 13 open question as to whether smoking caused cancer, but that 14 it was recognized that asbestos was a cause of lung cancer. 15 Now, Dr. Parmelli, who's not a medical doctor, but a 16 Ph.D., was the director of research for Lorillard. It was 17 then called the P. Lorillard Company. It's the same company 18 now. And he had changes and edited Dr. Fishbein's book.

```
19 And there's a subsequent letter that shows that he put in --
20 that Parmelli, the director of research at Lorillard, put in
21 a plug for the Micronite filter in this book that
22 Dr. Fishbein was publishing.
23
       Now, to be objective, scientists, when they publish
24 things, are supposed to recognize who has contributed to
25 those publications, because people ought to know who's
26 paying for research that might affect them, and it's
27 something that people ought to know and be able to consider.
28
       MR. BRAKE: Your Honor, I'll object to the
Page No.
          361
1 argumentative nature of this line about what scientists
2 should or should not know. I don't think that's
3 appropriate.
4
     THE COURT: Okay. Let's not speculate or argue,
5 please.
6
     MS. CHABER: And Dr. Fishbein had indeed written: "I
7 am indebted to the P. Lorillard Company for assistance in
8 securing necessary clerical and bibliographic aid in
9 developing this book." And Dr. Parmelli crossed that out.
10
       Well, after this book was published, Lorillard
11 requested reprints of it, sent it around the country. And
12 Lorillard thanked Dr. Fishbein for plugging the Micronite
13 filter, for essentially recommending it, in this book.
14
       Dr. Fishbein was also involved in another project that
15 Lorillard had, which was called the Chicago Throat Doctors
16 study. And what this was, was they sent gift boxes of
17 cigarettes, of Kent with the asbestos Micronite filter, to
18 the doctors in the Chicago area, and they asked them to
19
   conduct a very scientific experiment. They asked them to
20 determine whether or not their throat felt better when they
21 smoked Kent, as compared to other cigarettes.
22
      And they wrote in their letter to the doctors that:
23 "We, at Lorillard, are trying to avoid the use of
24 questionable medical claims in advertising. That's why we
25 are coming to you." And in response, they got all sorts of
   testimonials thanking them for the free cigarettes and
26
27
   saying: Oh, yeah, my throat feels much better.
28
       With the exception of one gentleman, a Dr. Jerome
Page No.
          362
1 Silver who wrote them in May of 1954, that "The other
2 concern that I had is the effect of the asbestos, which is
3 used in the filter. There have been unofficial reports of
  cases of asbestosis found in people smoking Kents and said
5
  to be solely a result of such smoking." Then he goes on to
6 talk about how he liked the Kents.
7
      And then at the end he says, "I feel that as an
8 individual, Kents served my purpose best, but I would like
9 to see a scientific investigation of the effects of the
10 asbestos contained in the filter."
11
      Now, right about this same time, Dr. Knudson -- who
12 developed the filter media that Hollingsworth and Vose was
13 manufacturing -- Dr. Knudson worked for them. He wrote a
14 letter to Lorillard saying they were having a problem
15 anchoring the asbestos in the filter. And right about that
16 same time, Dr. Knudson, incidentally, quit smoking Kent
17 cigarettes. Milton Horowitz was not so lucky.
18
       The patent describes a loosely -- the patent describes
19 a loosely, uncompacted mixture, crepe paper, asbestos
20 fibers, cotton and cellulose acetate. And it's not
21 surprising that the asbestos has come out looking like a
22 filter.
23
       MR. OHLEMEYER: Your Honor, I really don't want to
```

24 interrupt, but this is not a statement of what the evidence 25 will be. This is Ms. Chaber's argument about what she 26 thinks the evidence, that may or may not be admitted in this 27 case, will be. It's not a proper opening statement. 28 THE COURT: Well, if she's going to prove it, and I Page No. 1 guess she says that's what she's going to do, she can go ahead and say it. 3 MR. OHLEMEYER: What she's doing is arguing what she 4 thinks it means, not what she's going to prove. THE COURT: The jury can hear this is an opening 6 statement, what she intends to prove. If she doesn't prove 7 it, it's a failure on her part. MR. OHLEMEYER: Thank you. 8 9 MS. CHABER: During this time period, Lorillard sold 10 more than 13 billion Kent cigarettes with asbestos in the 11 filter. That's some 13 million cigarettes every day, 30,000 12 of which were smoked by Milton Horowitz. He did not know 13 that he was inhaling asbestos. It's something that the 14 defendants didn't tell very many people. When they got a letter requesting answers to a number 15 16 of questions, one of those questions was: What is the 17 filtering element composed of, and the answer was: The 18 filtering element of Kent cigarettes is composed of 19 Micronite, which is a rather complex mixture, the exact 20 nature of which we believe it is unethical for us to 21 disclose. And then they tell them that the filtering 22 element in Old Gold Filter Kings, which does not have 23 asbestos in it, is a special grade of absorbent tissue 24 paper. And the patent, although it states asbestos, also 25 states that: Other substances could be used in place of the 26 asbestos. 27 From 1952 to 1954, Hollingsworth and Vose was warned 28 about the hazards of asbestos. The Massachusetts Department Page No. 364 1 of Labor, where the plant was located, sent inspectors out to the factory who told the defendants, who already knew, 3 told Hollingsworth and Vose that asbestos was hazardous. 4 And you will hear, either, hopefully from the witness 5 stand or in the form of a deposition read to you, prior 6 testimony taken from a Elise Comproni, who inspected that 7 plant, who will tell you that he was appalled by what they 8 were doing with the asbestos, something that could be inhaled into the lungs, but that he was powerless to do 10 anything about it. And that in the 1950s. He was unwilling 11 to champion a cause, go public with it, go to the press. He 12 didn't have any powers, under the Massachusetts Department 13 of Labor, to close them down. They weren't doing anything 14 illegal. 15 And there was a joint agreement between Hollingsworth 16 and Vose and Lorillard that they are in this together; that 17 this was a joint effort by both of them, just as it is in 18 this courtroom. As long as Lorillard wanted it, 19 Hollingsworth and Vose kept making and selling the asbestos 20 filter. And both these defendants supplied and sold it, 21 regardless of the dangers. 22 Now, to the public there were pseudoscientific tests 23 to show how effective the Kent Micronite filter was, but 24 what they had people do was breathe through a piece of 25 paper, the cigarette, and breathe through a piece of paper 26 and handkerchief, and they showed that the stain on the 27 piece of paper was less with the Micronite filter. That was 28 the science shown to the public.

Page No. 365 But when they did testing elsewhere with real 1 2 scientists, they found out that asbestos came out of the 3 smoke. Now, before 1954 -- they started in 1952 -- before 4 1954, they had some tests conducted, but the efforts will 5 show that these tests are inadequate to demonstrate asbestos 6 to be able to detect asbestos. 7 Asbestos is microscopic. It's measured in a measure 8 called microns. These microns, if you look at the size of a 9 micron and you imagine down, it's about the size of a red 10 blood cell. So you can imagine how small the fibers are. Well, you need special equipment to be able to detect 11 12 asbestos fibers. And this special equipment was not used by 13 any of the researchers they hired before 1954. But in 1954, 14 Lorillard went to one of the few electron microscopists, 15 people who specialized in that. There were a very limited 16 number of 50 in the 1950s who actually had this equipment, 17 and they went to Althea Revere and Wanda Farr, who women, 18 very early scientists in the 1950s who owned an electron 19 microscope, and they asked them to do some testing. Now, we know this from some correspondence that refers 20 21 to reports by Revere and Farr. The reports are not in 22 Lorillard's files, but the correspondence indicates that 23 asbestos was coming out in the smoke. 24 So they then sent to Ernest Fulham, who was another 25 person who had an electron microscope -- and we are again in 26 1954, right in the middle of this time period -- and Ernest 27 Fulham confirmed that asbestos was indeed coming out in the 28 smoke, confirmed Althea Revere's earlier findings. Page No. 366 Again, all we have is some correspondence. There are 1 2 no reports. There are reports in Lorillard's files from 3 these other tests that were conducted. There are reports in 4 Lorillard's files of some subsequent tests, again, not using an electron microscope or an adequate electron microscope, 6 but these are not there, but what we do have is something 7 called photomicrographs. 8 And you can actually take a photograph of what is seen 9 in the microscope. And they had this technology back in the 10 1950s. And Ernest Fulham's lab did this. And low and 11 behold, when somebody went to Fulham's lab, they found that 12 he still had the negatives. And from those negatives, 13 pictures were made. You can actually see photographic 14 pictures. 15 Ann you will hear from a Douglas Hallgren, who was 16 Fulham's assistant. And he'll testify that they were the 17 only two people that worked there -- he was working 18 part-time and he was Fulham's assistant -- and that their 19 job was to examine the smoke from Kent cigarettes, Kent that 20 had asbestos in it, and to see if there was asbestos in the 21 smoke. And indeed, they confirmed it. 22 Now, both Revere and Fulham, we know that Lorillard 23 respected them because there are subsequent reports in 1958, 24 after the asbestos was removed, from Revere, that she did 25 work for them after that, and from Fulham, that he did work 26 for Lorillard after that, and these pictures show asbestos 27 fibers. 28 Now, they are identified as Kent silicates. A Page No. 367 1 silicate is the broad range of category that minerals fall 2 under. That is fibrous minerals like asbestos fall under. 3 The composition of the filter was crepe paper, cotton, 4 cellulose acetate and Crocidolite asbestos.

Crepe paper doesn't look like that, cellulose acetate 6 doesn't look like that, cotton doesn't look like that. They 7 are all plant products. This is asbestos. And this is the 8 asbestos that was seen through the microscope, through the 9 electron microscope at Fulham's lab. 10 And Mr. Hallgren will testify that they also looked at 11 experimental cigarettes, ones where Lorillard was trying to treat the filter to keep the asbestos in, and he'll testify 12 13 that none of the treatments worked. In the smoke there 14 would be asbestos fibers, whatever they did with it. And as 15 a comparison, they were sent -- a comparison to these 16 experimental ones, they were sent what was called regular 17 Kents. Regular Kents. That's what Milton Horowitz smoked. Now, as I said, there were some, and the evidence will 18 19 show, there were some tests after Fulham and Revere that 20 they had done, but the techniques were all inadequate. 21 Hollingsworth and Vose did a test there, but they even state 22 in their correspondence that they didn't have the right 23 equipment or the right technique to use. And the Armor 24 Laboratories also was not done with adequate technique. And apparently, although the public didn't know, other 25 26 cigarette companies apparently knew what was in the 27 Micronite filter, because they started an advertising 28 campaign to compete against it. Page No. 368 L&M came out with an ad that said: Effective 2 filtration from a strictly nonmineral filter material, alpha cellulose, exclusive to L&M filters, entirely pure and 4 harmless to health. And this was directly in response to 5 Lorillard's safe, harmless, and dust-free advertising. Now, mid-1956, Lorillard abruptly canceled the 6 7 contract with H and V, but they never, the evidence will 8 show, recalled any of the Kent with the asbestos filter that 9 were already out in stores, that were already out in the 10 distribution. Evidence will show they never told the public 11 that they had changed from this asbestos filter to now a total cellulose acetate, or nonmineral filter. They still 12 13 used the Micronite name and they still made health 14 protection claims. 15 Milton Horowitz was a loyal Kent cigarette smoker. He 16 switched in 1952 from nonfiltered cigarettes to Kents 17 because they were considered the safe cigarette. It's the 18 only filter cigarette he ever smoked, and he smoked it for 19 ten years, one pack a day, until he quit on New Year's day, 20 1963. 21 Now, the one thing about these fibers, the blue 22 asbestos -- actually, any asbestos, is that it divides down 23 and splits into finer and finer fibers, needle-like 24 structures in the lung. In fact, the lung tries to break 25 down the asbestos fibers in trying to get rid of the foreign 26 particle, and the asbestos, which is indestructible, merely 27 splits into smaller and smaller pieces. And the evidence 28 will show that asbestos inhaled with tobacco smoke, that the Page No. 369 1 tars and the vaporous gases helped bring the asbestos down 2 into the deep recesses of the lungs where they never leave, 3 except for to migrate to the pleura, to the lining of the 4 lungs, to where mesothelioma forms. 5 Now, there's been some more recent testing that was 6 done. It was done initially -- a cigarette collector, a 7 doctor John Slade, a doctor on the East Coast -- apparently 8 there is some kind of club where people actually collect old 9 cigarettes, and Dr. Slade sent some of those and actually

10 brought them down, some of those old Kent cigarettes, 11 vintage Kent cigarettes in their cellophane wrapping, 12 completely intact, aluminum foil protecting the cigarette 13 with cellophane wrapping around it, and brought them down to 14 Dr. William Longo, who is an expert, present-day expert, in 15 the electron microscope, what's called a transmission electron microscope, and there's also scanning electron 16 17 microscope. 18 And he has a laboratory called Materials analytical 19 Services. He's done work for the EPA. He trains and 20 teaches people how to use electron microscopes, and he's 21 been a consultant to business, to industry, to 22 manufacturers, and he's been a consultant to lawyers, 23 lawyers for manufacturers, and lawyers representing people 24 such as myself. 25 And he got ahold of these vintage, original Kents from 26 1952 and 1955. Now, you wonder, how do you know what year a 27 cigarette is from? Well, apparently there is a thing called 28 a tax stamp on the end of cigarettes, or at least there was. Page No. 370 1 I don't know if that still exists. And you can date a cigarette by the tax stamps. It has to be registered. And the first thing he did was he tested these filters 4 to see: Is this really true? Do they really contain 5 Crocidolite asbestos? And the answer was: Yes. He then sent off a couple of the cigarettes to a place 7 that had a smoking machine. Now, these are machines that 8 are actually designed to test tar and nicotine levels. And the reason they have a machine is so that you get a 10 consistency in the tests so that you can compare tar and 11 nicotine from brand to brand, or different types of 12 cigarettes. So he sent off these cigarettes to a smoking 13 machine. And the smoking machine used some kind of a filter 14 15 that apparently had glass fibers in the filter on the 16 smoking machine. They collect the materials from the smoke, 17 collects onto some filter from the machine, and then you can 18 analyze the filter. 19 Well, when he went to analyze the filter, there were 20 so many glass fibers there and glass particles from this 21 filter from the machine, that he would have spent a couple 22 of years trying to count and look for the asbestos. So 23 there went a couple of cigarettes out the window because the 24 filter was unusable, in terms of being able to look for 25 asbestos. 26 So recognizing that that was a problem, he devised his 27 own protocol, and that's something that he does if a 28 manufacturer goes to him and asks: Can you test my product, 371 Page No. 1 he devices a protocol, and that's what Fulham did, and that's what Revere, presumably, did. 3 And he devised a protocol to obtain the smoke from 4 Kent cigarettes from this time period during the time that 5 it had Crocidolite in it. And there's no issue that he did 6 that part of the test at the request of a plaintiff's 7 lawyer, such as myself. 8 He found asbestos in the smoke of the cigarettes. 9 I'll show you some of it. What we have here is the side 10 view -- what he looked at in the asbestos filter was a side 11 view looking at the filter like this. And you have to 12 understand we are looking at this highly magnified. And what you're seeing in here, the bright white --14 because this is electron microscope, the asbestos shows as

15 bright white -- that is the asbestos on the end of the 16 unsmoked cigarette. And what you're looking at is a further 17 magnification in my right hand. Here's the edge of the 18 filter and the white is the asbestos. We have an either 19 further magnification. You can see the fibers, all the 20 white. The bigger fiber here, that's the cotton. And after he smoked the cigarettes -- and by smoking 21 22 them, I don't mean that he actually, physically smoked them, 23 but he devised a protocol using a syringe, taking some air 24 that would simulate a person puffing on a lighted cigarette, 25 and then trapped what was in there, examined it under the 26 electron microscope, and what he found was similar to what 27 was found in Dr. Fulham's laboratory was asbestos, 28 Crocidolite asbestos. From the smoke. From the Kent Page No. 372 1 Micronite filter in the 1950s. And Dr. Longo has had his study published in a journal 2 3 called Cancer Research, the same pictures that I've showed 4 you, and it was published in June of 1995, two months ago. 5 And this is published in what's called a peer review 6 journal. And what that means is that peers of his, other 7 people with the same expertise, have evaluated and examined the study he submitted to determine whether or not it was 9 worthy of publication. And other than some changes in 10 language, phrasying of English, it was published unchanged. 11 And subsequently, he's done some follow-ups, again at 12 the request of lawyers, using the smoking machine, and 13 indeed, he still found asbestos in the smoke. A little bit 14 lower quantities than had been found in the protocol that he 15 set up, but still at dangerous levels. And the evidence 16 will show that the defendants had the technical knowledge 17 and the wherewithal to create studies and tests, but had not 18 done so. And Dr. Longo videotaped the whole procedure that he 19 20 did, so that no one would question what he did, how it was 21 done. It's all on a videotape. It's three-and-a-half hours 22 long, and it's boring as can be. And I'll probably show you 23 little portions of it, and I'm sure the defense will pick 24 out other portions to show you. 25 But Dr. Longo will tell you that he videotaped it and 26 videotaped the procedure so that nobody could question or 27 question what he did, so that it was there for all to 28 examine and all to see. Page No. 373 1 And he also took photomicrographs -- those were some 2 of the pictures that I was showing you -- through the 3 electron microscope of the Crocidolite asbestos. And what 4 he found and calculated was much greater than any background 5 levels of asbestos. 6 You'll hear it said that there is asbestos in the air 7 everywhere and we are all breathing it. It's at small levels and it is not in the United States, Crocidolite 8 9 asbestos. You will hear from a Dr. William Nicholson, who 10 has published and set the standards for the EPA, for NIOSH, 11 National Institute of Occupational Safety and Health, the 12 asbestos standards, for OSHA, Occupational Safety and Health 13 Administration, and he will tell you that he's done a survey 14 of the air in the United States, and Crocidolite asbestos is 15 not a background exposure that we have. 16 Crocidolite, there are no natural outcroppings of 17 Crocidolite. You'll hear that in California, our state rock 18 is called serpentine which, in its fibrous form, happens to 19 be asbestos, and that there were actually some asbestos

20 mines up in Calaveras County. You will hear that any background asbestos that's in 2.1 22 the air merely adds to people's exposure, and that it's 23 mostly chrysotile, which is considered by many to be less 24 hazardous than Crocidolite asbestos. It's considered by 25 most people to be the most hazardous form of asbestos. And when they've done studies of people who have Crocidolite 26 27 exposure, only Crocidolite exposure, they found the highest 28 rates of disease and the highest rates of mesothelioma. Page No. 374 Asbestos is not only indestructible and once in the 1 2 lungs stays there, unless it moves to the lining of the 3 lungs, but there's a delayed response. The body has a 4 delayed response to asbestos. 35 or 45 years after exposure is when the peak of disease is, when you see the most cases 6 of asbestos disease from people who have been exposed to 7 asbestos. This is what's called latency. And it's like getting 8 9 the flu. When you sit next to somebody at work and they are 10 sick and you go: Oh, please, stay away from me. I don't 11 want to get sick, well, you don't get sick that minute. 12 What happens is it takes awhile and a week later you find 13 yourself sick, that's the latency. 14 With asbestos disease, the latency isn't a week, but 15 it's 35 to 45 years, and that's not a magic number. You can 16 get asbestos disease in less than 35 years, and it can take 17 longer than 45 years for it to come down, but this is the 18 time frame that you see the most incidence of disease is 35 19 or 45 years later. And 42 years after Milton Horowitz 20 started smoking Kent with the asbestos Micronite filter, he 21 was diagnosed with mesothelioma. 22 The only known cause in human beings of mesothelioma 23 is asbestos exposure. There's a substance that's like 24 asbestos called zeolite, but the only place we really know 25 that exists is in Turkey, and the evidence will show that 26 Dr. Horowitz never went to Turkey. 27 There's no known safe level of exposure to asbestos. 28 You will hear from Dr. Nicholson that all levels of exposure Page No. 375 1 creates some risk. But the thing about mesothelioma, you 2 don't need a lot of exposure. There are reports of people 3 getting mesothelioma from merely living in the neighborhood 4 of a factory or a mine. 5 There're reports of mesothelioma in people who lived 6 in the same household as somebody who worked with asbestos 7 who may have carried some of it home on their clothes. And 8 the asbestos in the Kent Micronite filter was loosely 9 uncompacted. That's what the patent said, it was to be made 10 loosely uncompacted. And the evidence will show it was 11 unencapsulated. It didn't have any kind of treatment on it 12 in an attempt to reduce it. And what it was, was a time 13 bomb waiting for the latency to go off in Dr. Horowitz's 14 lungs. 15 The evidence will show that the defendants are 16 responsible for compensating Milton Horowitz because they 17 supplied a defective product which failed to perform as 18 safely as the ordinary consumer, like Milton Horowitz, 19 expected it to. The evidence will show the defendants are responsible 20 21 for compensating Milton Horowitz because the benefits of the 22 design of that filter were so far outweighed by the risk. 23 The evidence will show that they are responsible for 24 compensating him because they fraudulently, falsely and

25 misleadingly advertised this product as pure, safe, harmless 26 and dust-free, and offering protection of health, which it 27 did not. 28 The evidence will show that these defendants are Page No. 376 1 responsible for compensating Milton Horowitz because they 2 failed to warn the consumers of the potential risks. And they are also responsible, the evidence will show, 4 because they were aware of the probable consequences of 5 their actions, but did it anyway, in order to make money. Now, let me tell you a little bit about Milton 7 Horowitz. He had an active, full-time practice as a 8 psychotherapist. He's not an M.D. doctor, a 9 psychotherapist, he's a psychologist, a Ph. D., and he's 10 having to give up that practice. He has had to terminate 11 all his patients. When you're in long-term therapy, you 12 have to set dates. You can't say: Hey, I'm not coming back 13 tomorrow. People spend a long time. And the evidence will 14 show he had no plans of retiring. That was not in his mind. 15 He hoped to spend more time with his family, but the 16 evidence will show that he had an office behind his house, 17 which is where he did his work, and that he intended to keep 18 going. 19 Dr. Horowitz was 72 years young at the time. He just 20 celebrated his 72nd birthday on July 24th of this year, 21 which, incidentally, was the original trial date in this 22 case, and he's been married to Shirley Horowitz for 46 23 years. Shirley's 69 years old. They have four children and 24 a number of grandchildren, and they are very close to all of 25 their children. In 1994, he got the diagnosis of mesothelioma, which 26 27 is like getting a death sentence. His doctors did not know 28 about Kent and asbestos at the time. They knew he had maybe Page No. 377 1 some small exposures to asbestos. He came back on a troop ship from Japan at the end of 3 his army service, spent 13 days on the troop ship. He 4 didn't do any work on it, he was just a passenger on board 5 it, but he may have had some exposure there. And he was also a bystander while he was a teacher and 7 a practicing psychologist in both Cleveland at Reserve 8 University, what's now -- or Western Reserve, what's now 9 Case Western, and also a small amount of potential exposure 10 at a construction site next to his office in Los Angeles at 11 the Reiss Davis Center. 12 What's known is that in some individuals, there's no 13 reported asbestos exposure. Some individuals who get 14 mesothelioma, there's no report of asbestos exposure. 15 Generally, when these studies have been conducted, they have 16 been conducted after the person has died, and they are 17 asking family members: Well, what did they do and where 18 were they, and so forth. 19 And what seems to be the case is that often people's 20 asbestos exposure is hidden. And particularly if it's to 21 something like this Kent cigarette, where most people do not 22 know and did not know and still today do not know, including 23 many doctors, that Kent had asbestos in it. 24 And since smoking does not cause mesothelioma, a 25 doctor would not spend a whole lot of time inquiring about 26 brands that people smoked. It would have no relevance, they 27 would believe, to their opinions. The evidence will show that it is fortunate that 28 378 Page No.

1 mesothelioma is a rare disease, since it doesn't take very 2 much asbestos to cause it. It's fortunately rare in the 3 population. And even among asbestos-exposed people. It's 4 more frequent among people who have occupational jobs 5 exposing them to asbestos, but it's still, even in those 6 populations, a fairly rare disease. 7 And there is no threshold below which someone can't 8 contract mesothelioma. What's known is that the more 9 exposure you have, the more people will develop 10 mesothelioma. The less exposure that people have or a 11 population group has, the less people will come down with 12 the disease. And that if you have no exposure, you'll find 13 no disease. And what you'll hear over and over again is that Crocidolite, the asbestos that was in this filter, is 14 15 the most hazardous form of asbestos. 16 Now, one of the things you're going to have to do, and 17 your job will be, is to judge the credibility of all the 18 witnesses, including Dr. Horowitz. And you will have to 19 determine whether or not you believe Dr. Horowitz, that he 20 smoked the Kent cigarettes in the right years, in the years 21 where it had the asbestos filter. His memory is not perfect, like most of our memories, 22 looking back 40 years. But he does have a good memory for 23 24 important events in his life. And one of the most important 25 events in his life was his first job after he got his Ph.D., 26 graduated from the Meninger Institute in Kansas, and went 27 off to Cleveland. He moved to Cleveland in February of 1952 28 to begin as an instructor at Western Reserve University. Page No. 379 1 And he started smoking Kents in the spring or the 2 summer of that year. He recalls being influenced by all the 3 advertising for this product, by all the claims of health. 4 And the 1952 date is clear in his mind, but you will have to 5 judge that. What's less clear in his mind is the brands that other 7 people smoked or the exact packaging that it came in, and all the little details. But what he can tell you is, and 9 what he will tell you is, that that filter that I showed 10 you, he'll tell you that he recognizes this pack, and that's 11 what he started out with, and that he switched to the king 12 size. And he'll tell you that he recognizes that filter that 13 14 had the crepe paper in it, that had the little holes in it 15 that was blue. And he distinctly remembers the color blue. 16 That blue, because it was the color of his father's eyes, 17 and that's one of the things that attracted him to this 18 cigarette. That, and switching from a nonfilter to a 19 filter, because it was going to be safe. 20 And he recalls that he smoked these cigarettes for ten 21 years, and that he quit in January of 1963; that he was 22 starting to be concerned about health hazards of smoking. 23 This was before the Surgeon General's report, before there 24 were ever warnings on cigarettes, and that he didn't want to 25 be a bad influence for his children. He didn't want them to 26 start smoking, and he truly believed that if you want to set 27 the right example for children, you have to do it yourself. 28 So he quit smoking. Page No. 380 And you will hear from family members that Kent was 1 2 the house brand. That was the brand that was smoked around 3 the house. And unfortunately, his children didn't exactly 4 take his example well, and the first cigarettes they

5 remember sneaking were Kents.

Mesothelioma is a fatal disease. There's a less than 7 ten-percent response rate. I don't mean cure, I mean 8 response to treatment, where treatment helps slow the cancer 9 down. There is no cure. 10 Before 1994, he was active. He worked full time. He 11 swam a half a mile every morning. In fact, that's how he 12 discovered he had the mesothelioma, he couldn't make it to the other side of the pool, because he couldn't breathe. 13 And when he went to the doctor, they found that he had 14 15 fluid in his lungs, which is a classic way that mesothelioma 16 presents. And the diagnosis, the first diagnosis they made 17 was an adenocarcinoma, which is a form of a lung cancer, a 18 type of cancer, was quickly changed, when they did further 19 studies, to mesothelioma. 20 And that's been confirmed at lung Kettering Lung 21 Cancer Center in New York, and it's been confirmed by 22 Dr. Samuel Hammar, who will be here, hopefully, tomorrow, 23 who is the author of a textbook on pulmonary pathology, and 24 who is an expert at the diagnosis of mesothelioma. 25 He's an expert about asbestos-related diseases. He's 26 on the mesothelioma panel for Canada and United States.  $27\,\,$  He's the doctor that reviews all of the pathology for a 28 study that's being done by the University of California at Page No. 381 1 San Francisco on giving people beta carotene and other high 2 doses of vitamins, people who have been exposed to asbestos, 3 and he reviews all the pathology materials for them, as 4 well. And the evidence will show that Dr. Horowitz was 5 6 healthy before he was diagnosed with the mesothelioma. He 7 quit smoking in 1963, and in 1971, he was diagnosed with a 8 colon cancer. He had surgery. He's never had a recurrence 9 of it. It's been more than 20 years, and he is considered 10 cured from that. He barely slowed down, but he did, he 11 changed his eating habits. In fact, his family calls him "The King of Crunch," because of the cereals that he eats 12 13 every morning. 14 In 1986 he was diagnosed with prostate cancer. He had 15 surgery, cancer went into remission, and then a couple of 16 years later he had increasing PSA levels, which is prostate 17 specific antigen, which is a measure and can be an 18 indication of a recurrence of prostate cancer. He was treated with hormones for that, and the PSA 19 20 went down and has been at zero and maintaining at that level 21 for a number of years. And the evidence will show he went 22 back to work, he went back to his lifestyle, and he was fine 23 until this mesothelioma. The evidence will also show that those diseases are 25 not connected to the mesothelioma. They are not a spread of 26 any other cancer. It is a form of poisoning, asbestos 27 poisoning. 28 And there's no evidence that the prostate cancer has Page No. 1 spread to any other organs, and there's no evidence that he 2 wouldn't have lived his full and normal life time. The 3 colon cancer and the prostate cancer were both treatable 4 diseases. Mesothelioma is not. As the cancer, the tumor, the mesothelioma started to 6 spread, it encases the lungs. The lung is divided into 7 different sections, and it started growing between the 8 sections into his lungs. And as it started to spread in that fashion, his 10 doctor, his oncologist, his cancer specialist, said: We

11 can't just sit by and do nothing. Let's try something. And 12 he spent a number of hours researching, and he put together 13 his own chemotherapy cocktail for Milton Horowitz. 14 And low and behold, Milton has had a good response to 15 the chemotherapy. It's extremely unusual. Six months of 16 chemotherapy getting nauseous, being dizzy, losing his hair, losing weight, being in pain. It's affected his hands. He 17 18 can't play the piano anymore. It's affected his legs, 19 numbness and tingling, but he has a momentary reprieve. 20 Dr. Rosenbloom can't even believe it himself. But 21 it's momentary. It's temporary. The cancer is not gone. 22 The tumor is still there. It is still surrounding his lung, 23 and it will start to grow again, and it will kill him. He's had \$50,000 of medical expenses to date, and 24 25 there's another 50 to 100,000 anticipated in the future. 26 He's lost \$70,000 of income to date as a result of the 27 mesothelioma. And for the next three years, even though he 28 might have worked longer than that, the next three years, Page No. 1 even considering a reduced schedule, he will lose \$170,000. And he has suffered. He has been in pain. He's had 3 emotional distress. He's had to give up his patients, which is hard on both the patient and the therapist, and he's had 5 a loss of enjoyment of his life, and he's facing losing the 6 next ten years of his life. 7 Shirley has also suffered. She's suffered by his 8 suffering. She's watched him decline. She'll tell you how, 9 when he was going through the chemotherapy, how he'd get 10 dizzy; how he fell down the steps because he was so dizzy 11 and bruised himself; how he started to look like a holocaust 12 victim because he lost so much weight. And she is agonizing 13 and, at the same time, trying to enjoy their time together. 14 And we will ask you at the end of this case to award 15 punitive damages, as well, for the conscious disregard these 16 companies showed the public, the conscious disregard for the 17 health and safety of the people, people like Milton 18 Horowitz, and for the fraud that they committed. And I'd ask you, at the end of this case, to hold them 19 20 responsible for their irresponsibility, to make them 21 accountable, and to render a meaningful verdict for Milton 22 and Shirley Horowitz. 23 Thank you. THE COURT: Thank you. We will take the afternoon 24 25 recess at this time until 3:25. Please keep in mind the 26 fact that you are not to discuss the case, either amongst 27 yourselves or one anyone else. If anyone attempts to 28 discuss the case with you in any way, please advise the Page No. 384 1 Court of that fact at once. 3:25 return please. (In chambers outside the presence of the jury.) MR. OHLEMEYER: I guess the record should note we are 4 in chambers with counsel present and the judge. 5 Your Honor, I would like the jury to be instructed 6 that what Ms. Chaber has shown is not evidence, it is not evidence until she puts it into evidence, and I think what 8 went on during the last hour-and-a-half was extremely 9 prejudicial, it was improper, and the jury is now left with 10 the impression that all of that is uncontested evidence; 11 that there will be no objections to it, and that she has 12 somehow shown them something that has been established as a 13 fact. I think the entire procedure was improper. I think 15 the jury should be so instructed that that is not evidence,

```
16 and it is not evidence until it is admitted into evidence in
17 court or through a witness.
      THE COURT: Any comment?
18
19
       MS. CHABER: I believe, Your Honor, you did that prior
20 to my opening. I believe you told the jury that none of
21 this was evidence, that I had to prove it, that they could
22 hold me responsible if I didn't prove it, and I believe all
23
   of that was on the record and said to the jury before I got
24 up and did anything.
25
       And as I expressed off the record to the Court, I have
26 a good faith belief that all of the things that I have shown
27 the jury will come into evidence. We have had certain
28 prerulings from the court with respect to Dr. Longo, with
          385
Page No.
1 respect to the Fulham photomicrographs, and I only showed a
2 couple of letters and a couple of ads. I showed a picture
3 that my client can authenticate of the cigarette filter.
      I do not believe that there was anything improper
4
5 about what I did, and if I don't prove it, I'm sure these
6 defendants, who have ordered a copy of the transcript, will
7 shove it down my throat, to be blunt.
      THE COURT: Okay. All right. Well, I think I've
8
9 admonished the jury that what she said is not evidence and
10 that she has to prove it. If she doesn't, she'll suffer the
11 consequences.
12
     MS. ROENISCH: I'm not sure it was clear as far as
13 documents.
14
      MR. SCHOLL: I would agree.
      MS. ROENISCH: What I would ask for is the documents
15
16 are not evidence.
17
      THE COURT: All right. I'll emphasize it again.
      THE COURT: Sure.
18
19
      (Recess taken.)
20
      (In open court in the presence of the jury.)
       THE COURT: It appears as though everybody is here,
21
22 all the jurors and the attorneys, except for one juror, who
23 is now arriving.
       Ladies and gentlemen, I had indicated to you earlier
24
25 that what the attorneys say is not evidence. I want you to
26 keep that in mind. I didn't say specifically that all of
27 the things that Ms. Chaber has shown you are not admitted
28 into evidence at this time. We will see whether or not they
Page No. 386
1
   are admitted in evidence.
     You looked looked at them and you know what they were,
2
3
  what they said, so on, but they are not evidence for you to
4 consider until they are admitted into evidence and marked,
   and then you will see them in the jury room.
6
     The defense may now make their opening statement.
7
     MR. OHLEMEYER: May it please the Court.
8
     Once again, I'm Bill Ohlemeyer and I represent
9
  Lorillard. You met Ron Scholl yesterday. And before I
10 start, I want to introduce Jim Cherry. Mr. Cherry is vice
11 president of Lorillard, and he is here and will be here for
12 the trial, but I wanted to introduce you to him so if you
13 saw him in the hall or the elevator, you will know that he
14 is here with me. There may be a few days or a few sessions
15
   where he's not here, but for the most part, Mr. Cherry will
16 be here throughout the trial.
17
      The other thing I want to tell you is that I know it's
18 getting late in the day. I'm going to try to be very brief.
19 I think the place that I want to start is much of the
20 evidence that you'll hear in this case has to do with the
```

21 time period 1952 to 1956, and it was in May of 1956 when 22 Lorillard stopped selling cigarettes with the asbestos 23 filter that you heard about. The one thing everybody's going to agree about is this 25 was 40 years ago and 40 years ago, things were very 26 different. Those of us who were not alive in 1952 mark time 27 and engage time a little differently than some of you who 28 night have been, but this was a time when Harry Truman was Page No. 387 1 just leaving office as president, Dwight Eisenhower was 2 taking office. The San Francisco giants played baseball in 3 New York. They were the New York Giants then. And those of you who have been here since the '50s can 5 probably remember some of the changes in and around San 6 Francisco in and around these 40 years. But a lot of what 7 we are going to hear about deals with this time period. And most of the evidence that I'm going to present --8 9 and I want to remind you there are a lot of ways for the 10 evidence to come in. It can come in direct examination, 11 cross-examination, documents and exhibits. And some of the 12 things that I'm going to list for you today you may not hear 13 in my case, you may hear them from the plaintiffs' 14 witnesses. And even though the plaintiff has put the 15 witness on, that doesn't mean that it doesn't prove 16 something that I expect to prove to you. 17 But there are three main areas of evidence that you're 18 going to hear about. The first one is asbestos filter 19 material. And I'll go into this in a little bit more 20 detail, but the evidence will be that at the time, putting 21 asbestos in a cigarette filter, or any other filter, was a 22 good idea. It was not a secret. 23 The cigarette that Lorillard sold with this filter was 24 a poor seller and by 1956, there was a need to improve or to 25 change certain things about the cigarette, and you'll hear 26 about those. 27 The next thing you'll hear about is Milton Horowitz, 28 Dr. Horowitz. You'll hear about Dr. Horowitz's medical Page No. 388 1 history, including, as Ms. Chaber told you, the fact that 2 he's had cancer before. And you'll here about 3 Dr. Horowitz's memory and recollection. And the reason I say that is this, and I'll describe 4 5 it in a little more detail in a minute. I don't know what 6 Dr. Horowitz is going to say when he testifies, but we do 7 know what he has to say about a lot of these subjects. 8 Dr. Horowitz was deposed at his attorney's request. 9 We all went to Beverly Hills and for two days, we took 10 testimony from Dr. Horowitz under oath, just like in a 11 courtroom. And he's described for us his recollection and 12 his memory and his employment history and his education, and 13 things like that. So we have a fairly good idea of what 14 Dr. Horowitz has to say. And what Dr. Horowitz's testimony 15 will establish is that he did not smoke Kent cigarettes 16 before 1956. 17 And then finally, you'll hear a lot of evidence in 18 this case about cancer and about mesothelioma. And you'll 19 here, probably from Dr. Hammar, who wrote this book, that 20 there are other causes of mesothelioma besides exposure to 21 asbestos. There's no doubt that exposure to asbestos in the 22 workplace is a common cause of mesothelioma. But there are 23 other things that cause it. And you'll also hear that there is a threshold level, 25 a minimum level of exposure before which you're at risk of

26 developing the disease. Mesothelioma is a cancer, and 27 you'll hear a lot about cancer, as well as specifically the 28 type of cancer known as mesothelioma. 389 So let me back up for a moment. In 1952, 1956, using 2 asbestos in a cigarette filter was a good idea. Asbestos was being used in a lot of different things at that time and had been for decades. It was being used as an insulation material, it was being used as a filter material, it was 6 used in consumer products, ironing board covers, fake 7 decorative snow to put on Christmas trees, things like that. Asbestos has been used and was used in a lot of 8 9 different buildings, ceiling tiles, floor tiles, insulation 10 materials, up through the 1970s. And, in fact, certain laws 11 required that asbestos be used in certain buildings, such as 12 schools and other public buildings into the 1970s. 13 There are regulations today that regulate exposure to 14 asbestos in the workplace, and they don't differentiate 15 among different types of asbestos fibers. They just set 16 levels that are designed to be put in workplaces. So from 1952 to 1956, asbestos was certainly something that was 17 18 being used in a lot of different things. 19 At that time, asbestos had been researched and 20 studied, and the only health effects that those researchers 21 had associated with asbestos was exposure to asbestos in the 22 workplace, prolonged and intense occupational exposure to 23 asbestos. And at that time, during the '50s, it only 24 involved people who were working with raw asbestos, people who were mining it, who were weaving it into asbestos cloth, 25 26 or who were milling it into other things. 27 And in the 1950s, what was believed was that if you 28 were exposed to asbestos at certain levels over long periods Page No. 390 1 of time in those types of workplace situations, you could develop a disease called asbestosis, and that is an occupational lung disease. It's a scarring of the lung. 3 4 Back in the 1950s, that was the only disease that 5 medicine and science had connected with asbestos. Asbestos 6 was still being used in buildings, it was still being used 7 in consumer products, it was still being used by workers 8 installing insulation. But at that time, asbestos was 9 believed to be a health risk in the occupations using raw 10 asbestos. 11 It wasn't until the 1960s that researchers began to 12 think that people who were working with asbestos in the 13 workplace, installing asbestos insulation or installing 14 asbestos tiles, could develop asbestos-related diseases. 15 In fact, it wasn't until 1960 that the association 16 between asbestos and the disease mesothelioma received wide 17 publication and discussion from the medical literature. And 18 those people were people who were living in a town where 19 asbestos was being mined and being used to pave the streets, 20 and things like that. And for the first time, then, in 21 1960, asbestos and mesothelioma was connected. 22 So asbestos was being used in a lot of different 23 products. It was a good filter material. The physical 24 properties of asbestos made it a good filter material for a 25 lot of reasons related to how things are filtered and how 26 filtration works. Asbestos had been used, it was used for 27 years after that, to filter air, to filter beer, to filter 28 wine, to filter liquids in a laboratory. Page No. At the time in 1952, asbestos had been used in Army

2 and Navy gas masks. Crocidolite asbestos filter material 3 was used in gas masks that were used in World War II. It 4 was also being used in Atomic Energy Commission facilities 5 to filter the air so that radioactive particles wouldn't 6 escape from those facilities. It was being used in hospital 7 operating rooms to filter the air and to help prevent infection and other problems in hospitals. 9 This was a time when the war had just ended and 10 everybody was interested in using that wartime technology, 11 the things that had worked so well in the war, to try to 12 make life easier, to try to incorporate them in consumer 13 products. There are some references to this being the atomic 14 15 age, or science and technology being very important. And so there was nothing unusual about a company taking a product, 17 such as the asbestos filter material used in the military 18 gas masks, and trying to find a way to use it in something 19 that they were selling. And what happened is in 1952, Lorillard started 21 selling Kent cigarettes with this asbestos filter material. 22 The filter was made of cotton, crepe paper, cellulose 23 acetate, which is a sort of synthetic, short synthetic 24 fiber, and these asbestos fibers. 25 Asbestos was somewhere, probably, about ten percent by 26 weight of the filter. It wasn't all asbestos. And you 27 heard about the patent. A description of the patent is 28 loose and uncompact filter material is a description of 392 Page No. 1 filter material. It doesn't have anything to do with 2 whether the material is loose inside the filter. A loose and uncompact filter is a filter that is made 3 4 a certain way, as opposed to a dense or a compact filter. 5 Examples are filters you use to filter coffee are dense 6 filters. Filters that you use to filter air, perhaps in a 7 furnace or an air system, are sometimes referred to as loose or uncompact filters. 8 9 It doesn't mean that this filter material wasn't 10 significantly compressed when it was manufactured. In fact, 11 the evidence will be that it was compressed at a ratio of 32 12 to 1, which will be like taking three feet of the filter 13 material and pushing it down into an inch before it was 14 fabricated and put on the cigarette filter. And there will 15 be testimony about that, about how the cigarette filter was 16 actually manufactured, and how it was attached to the 17 cigarettes. 18 But there was no secret about it. The fact that 19 asbestos was used in this cigarette filter was disclosed to 20 the government when the patent was applied for. And a 21 patent was issued by the government for this asbestos filter 22 material. 23 It was also known to the American Medical Association. 24 The American Medical Association at that time, as they still 25 do, publishes a journal that is sometimes referred to as 26 JAMA, the Journal of the American Medical Association. 27 And in July of 1954, the chemical laboratory of the 28 American Medical Association did some tests on filtered Page No. 393 1 cigarettes. There were only a couple on the market, and 2 they were trying to see which ones were better than the 3 others in filtering out the smoke. And in those articles, 4 they described the use of asbestos filter material in this 5 cigarette filter. There were actually four separate articles, two of

7 which talked about the asbestos filter material. None of 8 them said that there was anything wrong or any reason to be 9 concerned about using asbestos in a cigarette filter. In 10 fact, to give you some sense of how things were in the 11 1950s, this is the journal that gets sent to doctors and 12 indeed, there was cigarette advertising at that time in the Journal of the American Medical Association. There's an ad 13 here for Camels, there's an ad for Phillip Morris brand 14 15 cigarettes, and it's obviously not a secret to the American 16 Medical Association, and whoever read the journal, that 17 there was asbestos in the filter material. Consumer Reports is published by an organization 18 19 called Consumers Union, they did tests in the '50s, and they 20 disclosed the fact that there was asbestos in the cigarette 21 filter. And again, made no mention of it being a health 22 concern or no alarm about it at all. 23 Popular magazines like Newsweek -- and here are the 24 Dodger are still playing in Brooklyn. You can see the B on 25 his hat -- and Business Week also wrote articles about this 26 new filter and again, disclosed the fact that there was 27 Crocidolite asbestos in the filter. Didn't say anything 28 about being a health risk or causing any concern. So the Page No. 1 fact that there was asbestos in the filter material was not 2 a secret. 3 Now, the word "Micronite" is a trade name. Like a 4 trademark. It was used dozens of years to describe the 5 filter used on Kent cigarettes. The word Micronite doesn't 6 mean there was asbestos in the filter. It just is the 7 trademark that was used for whatever filter is being used 8 over the years on that cigarette. 9 The Kent cigarette sold during these years, though, 10 was a poor seller. The filter had an effect on the taste 11 and flavor of the cigarette. It removed a lot of the things 12 in the smoke that made cigarettes taste the way they taste. The cigarette that was sold during these years also 13 14 was sold at a premium price. The asbestos filter material cost more to manufacture. And the process that they used to 15 16 manufacture the cigarette was slow and inefficient. So Kent 17 cigarettes were sold at a premium price. They cost more 18 than other cigarettes. Premium price, weak taste, not much 19 flavor, and they weren't a very big seller. 20 During this entire time period, there was never a year 21 where they had more than one percent of the market. And 22 what that means is 99 out of every 100 cigarettes that got 23 sold during these years was something other than a Kent 24 cigarette. In fact, in 1955, the market share was about 25 point six-tenths of one percent, and in 1958 it was point 26 eight. Less than one percent of the market. Which is why 27 in 1956, it became necessary to change from the asbestos 28 filter to something else. Page No. 395 And the reason it happened is that the people who made 1 2 the filter material developed a way to make a nonasbestos 3 filter that was almost as efficient as the original filter, 4 but was cheaper and easier to manufacture, and it allowed 5 Lorillard to lower the price, sell the cigarettes at the same price as other brands, and still put out something that 7 people would by. 8 Before 1956, Lorillard had certainly an incentive to 9 change or to improve the cigarette. It wasn't selling. 10 They had the opportunity, they had available to them other 11 types of filter material. They were selling a cigarette in

12 1953 called Old Gold that had a filter on it that had a 13 filter that was somewhat like what they ended up using in 14 1956, but wasn't as efficient. So it wasn't as if they 15 couldn't put something else in the filter. And it wasn't as 16 if they were selling a lot of the Kent cigarettes. 17 But it wasn't until 1956 that that they finally found 18 an efficient manufacturing process and a supplier of filter 19 material, and they changed to the nonasbestos filter 20 material in May of 1956. 21 So a lot -- and a little bit of what we will talk 22 about, what you'll hear about in this case, will refer to 23 these two separate cigarettes. This is the old one with the 24 asbestos filter. This is the new one, which is after May of 25 1956. The price of the old one, as I said, was a premium 26 27 price. When they switched to the new filter material, it 28 was cheaper to buy, easier to manufacture, and allowed them Page No. 396 1 to lower the price to the same price as other cigarettes. 2 And the price reduction was advertised in full-page ads 3 across the country. The sales were very much improved after 1956. Lorillard sold as many Kent cigarettes in 1957 as they did in 1952 and all the way through 1956, combined. 6 And in 1958, they sold three times as many as they did in 7 1957. 8 So you had a cigarette before 1956 that never had more 9 than one percent of the market. After 1956, it became a 10 popular cigarette and became one of the most popular 11 filtered cigarettes in the market by the late 1950s. 12 The filter on the old Kent was a blue and white, kind 13 of marbled color. The composition of the filter was very 14 different than what cigarette filters look like today. It 15 had the crepe paper in it and it had the different filtering 16 material. When they switched to the new filter material in 17 1956, the filter was a solid blue color, and it looks much 18 like a cigarette filter looks like today. The composition of the filter material is very similar to the types of 19 20 filters that are on the market today. So in May of 1956, 21 there were a number of things about this cigarette that 22 changed. 23 Now, you've also heard -- you've heard about some 24 tests that Ms. Chaber described to you that were done during 25 the 1950s at Lorillard. And there were actually a number of tests that were done. Remember, this is the first filtered 27 cigarette that the company had sold. It's a time period 28 where business is doing a lot of research and development Page No. 397 1 and using some of these new analytical tools to look at 2 different aspects of the products, and there were a lot of 3 tests that were done. 4 They did tests to measure the temperature of the 5 smoke, they did tests to determine how efficient the filter 6 was at removing tar and other things from the smoke, they 7 did tests to determine whether the filter made it harder to 8 draw smoke through the cigarette. 9 And they also did tests to look at the smoke to see if 10 the smoke had anything in it that was from the filter, or 11 the smoke looked anything different than smoke from other 12 unfiltered cigarettes, and there were a number of different 13 tests done. And all of the evidence you'll hear about these 14 tests, for the most part, comes from Lorillard's files. 15 There's some correspondence and some writings that describes 16 all of these tests.

You'll hear about a man by the name of Killian. There 17 18 will be some evidence about the Laboratory of Industrial 19 Hygiene, abbreviated LIH. A man by the name of David 20 Kendall, who had a consulting operation. The Armor Research 21 Foundation, which is a part of the University of Illinois. 22 Dr. Fulham you heard about, you'll hear about, and 23 Ms. Revere. 24 And Dr. Killian did tests that determined that there 25 was nothing in the smoke, no asbestos in the smoke, no 26 silica in the smoke. In fact, Dr. Killian's tests suggested 27 that the smoke from the cigarette was cleaner than the air 28 you breathe. And as Ms. Chaber said, there will be Page No. 398 1 testimony in this case about asbestos occurring in the air. It's a natural mineral. It's in air, it's in water, and 3 there will be testimony about that. We don't know much about the Laboratory of Industrial 4 5 Hygiene, but the correspondence suggests that the results 6 were negative, nothing in the smoke from the filter. 7 Dr. Kendall used a technique called infrared 8 spectroscopy to determine whether or not there were any 9 chemical fingerprints of asbestos, and he found no evidence 10 of asbestos in the smoke. The Armor Research Foundation had 11 an electron microscope. They looked at the smoke under an 12 electron microscope. They found no asbestos in the smoke. 13 Dr. Fulham did two separate studies, one of which 14 found no asbestos, and the other found what he described at 15 the time as traces. And the correspondence that refers to 16 Ms. Revere's test also describes this as traces. All of 17 these tests show that there was either no asbestos in the 18 smoke, or it was below the level of asbestos you would 19 expect in the air and in the water. 20 And the tests that Dr. Fulham did, that you heard a 21 little bit about with respect to Mr. Hallgren, involved 22 cigarettes that were sent to him by Lorillard. He didn't go 23 out and buy cigarettes and do tests. There's very little 24 information about how those cigarettes were smoked or how 25 they were examined or what kind of techniques were used in 26 the Fulham laboratory. 27 The laboratory, at that time, was in the basement of 28 Mr. Fulham's home, and he and Mr. Hallgren would work a Page No. 399 1 couple nights a week looking at this under the microscope. 2 And the evidence will be that they didn't run any blanks or 3 any controls to see whether there was any asbestos in the 4 air or in any of the building materials in the basement. And there will also be evidence that these pictures, 5 6 these photomicrographs that Mr. Hallgren has found, depict a 7 number of other types of mineral fibers besides Crocidolite, 8 something that wasn't -- mineral fibers that weren't in the 9 filter. 10 There are tests that you can do today to look at 11 something under a microscope and determine its chemical 12 structure. You can differentiate between the Crocidolite 13 fiber and chrysotile fiber and other types of asbestos 14 fibers or other minerals. Those tests weren't routinely 15 done in the '50s, and to the extent they were done, they 16 found chrysotile in the fine fibers, not Crocidolite fibers. 17 Dr. Horowitz, as you heard, had cancer of the colon, 18 had cancer of the prostate. And then when he was 19 originally -- the colon cancer was something called 20 adenocarcinoma of the colon. The prostate cancer was 21 something called adenocarcinoma of the prostate. When he

22 first started having his lung problem, his doctors thought 23 he had adenocarcinoma of the lung, which is something 24 different than mesothelioma. 25 It was then determined that Dr. Horowitz had 26 mesothelioma. That's what his treating physicians, people 27 who were involved in his care and his treatment, decided. 28 And they told him that mesothelioma can be caused by Page No. 1 exposure to asbestos. They asked him about asbestos, and 2 the only thing he could recall was that he had some asbestos 3 pipes in his basement in the home he lived in. Eventually, Dr. Horowitz hired a lawyer and filed a 5 lawsuit against manufacturers of asbestos products that he 6 claimed he was exposed to in the Army on a troop ship, and 7 in Cleveland and in Los Angeles while he was working as a 8 psychologist. The claim in that lawsuit was that he was 9 sitting in his office with the window open, and they were 10 building a building across the street, and he might have 11 been exposed to asbestos. 12 In connection with that lawsuit, Dr. Horowitz's lawyer 13 sent him to Oakland to see a doctor by the name of Barry 14 Horn. Dr. Horn asked Mr. Horowitz whether he ever smoked 15 cigarettes. That's something that Dr. Horn asked all his 16 patients. He's a pulmonologist. And Dr. Horowitz told 17 Dr. Horn that he smoked cigarettes, and that he smoked Kent 18 in the '50s, and that he recalled smoking -- starting to 19 smoke Kent sometime after he moved to Cleveland, and he 20 smoked Kent until the early '60s, when he quit smoking. And he told Dr. Horn that the reason that he quit 21 22 smoking was that because for the first time, he started to 23 think that think that there might be something about smoking 24 that wouldn't be good for him. 25 Dr. Horn is the first person who told Dr. Horowitz 26 that there was asbestos in Kent cigarettes that were sold in 27 the '50s. Dr. Horowitz has testified in his deposition that 28 when he started smoking Kent cigarettes, the filter was a Page No. 401 1 solid blue, a pale blue, the color of his father's eyes, 2 exactly what he said in his deposition. 3 He also testified that the color of the filter changed 4 four years after he started smoking Kent cigarettes. And 5 the color that the filter changed to those four years later 6 was white. And that was the only change in the color of the 7 filter that Mr. Horowitz could remember during the time he 8 smoked Kent. He didn't recall the price going down. He 9 didn't recall the composition of the filter material 10 changing at all. 11 The evidence will be that when these cigarettes were 12 sold in 1957 -- '56, end of '56 and beginning of '57, they 13 were sold with a solid blue filter. And the color of that 14 filter did change, and it changed in the early '60s. It 15 changed to white. 16 Dr. Horowitz's testimony -- and there will be some 17 other pieces of evidence that will bear on this issue that, 18 by themselves, don't answer the question, but when you put 19 them all together at the end of the case, I think will make 20 it very clear that what Dr. Horowitz smoked was this 21 cigarette. He started smoking Kent sometime after 1956, after the 22 23 price had dropped, after the blue filter was put on the 24 cigarette, and he smoked it until sometime in the '60s, 25 after the filter had changed to the color of white. 26 Finally, the evidence that you'll hear has to do with

27 cancer. For all that is known about cancer today, there is 28 still a lot of things that medicine and science doesn't know Page No. 402 1 about cancer. Most cancers don't have a known cause. Some cancers 3 have risk factors associated with them, things that had been 4 demonstrated, in either experiments or in epidemiological studies, studies of groups of people, to increase the risk 6 of developing certain things. But for the most part, most 7 cancers don't have a known cause. 8 There is no cancer that has only one known cause. 9 There may be a rare type of brain cancer that is only caused 10 by one thing, but you'll hear from the plaintiffs' experts, 11 as well as the defense experts, that there is no cancer that 12 has only one known cause. 13 Mesothelioma behaves like many other cancers. There 14 are other things that cause it besides asbestos. 15 Occupational exposure to asbestos or exposure to asbestos in 16 the same amounts, as would be encountered in the workplace, 17 have been shown to cause mesothelioma. There are cases of people who live near factories who 18 19 are breathing a lot of asbestos everyday because of what's 20 going on in the factory, or who live in towns where there 21 are asbestos mines, or who do work with somebody who is 22 working in an occupational situation coming home everyday 23 with their clothes full of asbestos. There are cases 24 reported like that. But the vast majority of mesothelioma is caused by 25 26 occupational exposure to asbestos. About 20 percent of 27 mesothelioma in men, and up to a half in women, has no known 28 cause. Doctors study the cases. They talk to the patients, Page No. 403 1 they look at their medical records, they review their 2 histories, and they can't find something, including 3 asbestos, that might have caused that mesothelioma. Mesothelioma occurs in animals, it occurs in children. 5 It's reported in medical literature prior to the time there 6 was industrial use of asbestos in this country. It is 7 believed that heredity and genetics can cause mesothelioma. 8 There are doctors who believe that cancer has a 9 genetic component. There's something about genes that don't 10 work right or go wrong that create cancer. There are 11 mesotheliomas known as idiopathic or spontaneous mesotheliomas. Those are mesotheliomas that occur without a 13 doctor being able to determine what caused the cancer. 14 There is also increasing evidence to suggest, but not 15 established, that there's a threshold level of exposure. 16 For a while, when the risks of asbestos were first being 17 studied, there was some thought that one exposure to one 18 fiber of asbestos could cause cancer or other 19 asbestos-related diseases. That's not generally accepted 20 today as being correct. 21 And you'll hear some evidence about how medicine and 22 science changed their thinking over time about things. They 23 developed new ideas and they learned more as they study 24 things. But there is asbestos everywhere. Everybody has 25 asbestos in their lungs. You can do analysis of lung tissue from people who live in big cities and find asbestos in their lungs. Yet, mesothelioma is a very rare disease in 27 28 the general population in people who weren't occupationally Page No. 404 1 exposed to asbestos. There have been researchers who have gone at the

http://legacy.library.ucsf.edu/tiൽohtporal00/pdfndustrydocuments.ucsf.edu/docs/lrgl0001

3 question of threshold three different ways. One group has 4 been to study all of the occupational people who develop 5 mesothelioma and try to figure out how much asbestos they 6 were being exposed to in the workplace. And to do that, 7 they can measure the asbestos in the air and they express it 8 in a phrase "fiber per cc." And what that is, is one fiber, 9 one asbestos fiber in a cubic centimeter of air. And that's 10 one way to measure it. 11 And they have a phrase called "a fiber year" that is 12 something that is defined as exposure to one fiber per cc 13 for one year of work. That's all day, every day, eight 14 hours in a workday. And those researchers have determined 15 that it takes five fiber years of exposure to asbestos to 16 cause mesothelioma. 17 And you can express that -- you can do a calculation, 18 and it turns into about 260 billion asbestos fibers of a 19 certain size and a certain shape. And you'll hear a lot of 20 testimony about that, too, because it's important to the 21 ability of asbestos to cause disease. Only asbestos fibers 22 of a certain size and a certain shape have the ability to 23 get into the lung where they can cause mesothelioma. And there's been a lot of research on that, there's 24 25 been a lot of study of it, and it also is important, when 26 you consider the evidence that you've heard about from 27 Dr. Longo. I'll talk about that in just a second. 28 The other way you can do that, to try to figure out 405 Page No. 1 how much asbestos it takes to cause disease, is to look at something called fiber burden. And this is an analysis of lung tissue to see how much asbestos is in the lung. 4 And regardless of how you go at it -- and there are 5 different types of researchers who do it different ways --6 there are numbers, values, thresholds established. Exposure 7 below the threshold isn't believed to cause disease; 8 exposure above the threshold may or may not cause the 9 disease, depending on the individual person, but you have to 10 be exposed above the threshold before you're even at risk of 11 developing disease. 12 And in this case, you'll hear some testimony about a 13 Dr. Longo. What Dr. Longo did was take nine cigarettes from 14 a 40-year-old pack of cigarettes that he had no idea where 15 they had been in those 40 years, all he knows is that a cigarette pack collector, who was being paid as a consultant 16 17 by the same lawyers who pay Dr. Longo, had a pack of 18 cigarettes for a couple years that he collected. 19 They took those nine cigarettes and, after trying to 20 smoke them on a smoking machine, decided to use a syringe. 21 They took a drill and they drilled out the end of the 22 syringe and put the cigarettes in the syringe, lit them, and 23 pulled the plunger in the syringe in an effort to smoke 24 25 And Dr. Longo then looked at the smoke from inside 26 those syringes under a microscope and counted the number of 27 asbestos structures, not fibers, structures, that he found. 28 And a structure is a bundle, or an aggregate, or a group of Page No. 406 1 fibers. 2 And when did he that same thing with two other 3 cigarettes only using a smoking machine -- Dr. Longo gave a 4 deposition, and, in fact, I asked him about the cigarette 5 smoking machine, the syringe he used, and whether that was 6 really representative of the way people smoked, and he'll 7 testify that that made him mad, and he wanted to prove that

8 his syringe was an accurate test. And he went out and he took two more cigarettes that 9 10 were 44-years-old that he didn't know anything more about 11 than he knew about the other ones, put them in a machine 12 this time, and then looked at the smoke and counted the 13 number of structures he saw. You're going to hear a lot of testimony about this, 14 15 and this is all I want to say about it. He never did a test 16 to figure out whether putting the cigarettes into the 17 syringe -- and you'll see the videotape. It took a minute, 18 minute-and-a-half, two minutes, sometimes, to put those 19 cigarettes into those syringes -- never did a test to figure 20 out whether that caused asbestos to be released from the 21 filters. 22 When he did the test on the smoking machine, the 23 numbers he got were one-fiftieth of what he got with the 24 syringe. Without accounting for anything else, just using 25 that same old cigarettes in the smoking machine, he got a 26 lot of small numbers. 27 If you take his word and you leave aside all the other 28 criticisms you might make about this test, it turns out the Page No. 407 1 numbers he comes up with are one-two hundred fiftieth to 2 one-one thousandth of this threshold. If you accept Dr. Longo's numbers, smoking these 3 4 40-year-old cigarettes in his machine would expose -- would 5 release asbestos at a level that if you smoked a pack a day 6 for a year, you'd only get one-two hundred fiftieth to one-one thousandth of this threshold level of exposure 7 8 necessary to cause mesothelioma. 9 One final point about cancer and mesothelioma. There 10 are signs, or what doctors call markers of asbestos exposure 11 in individuals. Things that a doctor can look at either on 12 an x-ray or on a CT scan or in medical records and say: 13 This person has been exposed to asbestos, without knowing 14 anything about the person, without talking to the person. 15 You can take these records, you can put them in front 16 of a doctor, you can put x-rays on a machine, turn on a 17 light, and they can say: These markers, these signs, tell 18 me that this person's been exposed to asbestos. Asbestosis, the disease asbestosis, is one of these 19 20 markers, something called bilateral pleural plaques; little 21 callouses on the lung is another way to do it; pleural 22 effusions are another; and analyzing lung tissue to see if 23 there's more asbestos in the lung than you would expect to 24 find there is another way for a doctor to do that. In this case, Dr. Horowitz has none of those markers 25 26 of asbestos exposure. If you took Dr. Horowitz's medical 27 records and his x-rays and you put them in front of the 28 doctors, the most they could say was: This man has Page No. 408 1 mesothelioma. They can't look at those records and look at those 2 3 x-rays and say: This man has been exposed to asbestos. In 4 fact, Dr. Hammar, who may testify tomorrow, will tell that 5 you a pathologist can't ever look at a tumor and figure out 6 what caused that tumor. But just by looking at the tumor, 7 just by saying: This person has mesothelioma, that does not 8 tell you what caused that particular cancer. 9 So I look forward to having an opportunity to put the 10 evidence on for you and present this case, and I think that 11 when the trial is over -- and I think it will be a shorter 12 trial than we had anticipated, hopefully -- the evidence

```
13 will establish that using asbestos in 1950s was a good idea.
14 It certainly wasn't a secret. And that the asbestos filter
15 material was switched to nonasbestos filter material not
16 because of any concern about the asbestos, but in an evident
17 effort to improve the product, sell more cigarettes, which
18 actually happened, and that Mr. Horowitz does not have
19 mesothelioma caused by exposure to asbestos. Thank you.
20
       THE COURT: Mr. Brake?
21
      MR. BRAKE: Okay, Your Honor.
22
       Your Honor, Counsel, and members of the jury: You may
23 recall from yesterday that I'm Stephen Brake, and I
24 represent Hollingsworth and Vose. With me is Cynthia
25 Roenisch. Cynthia is from a San Francisco law firm Preuss,
26 Walker & Shanagher. She also represents Hollingsworth &
27
   Vose. And my partner, Andrew McElaney, from Boston, will be
28 here for most, if not all, of the trial.
Page No.
          409
     Hollingsworth and Vose is a paper company. It's not
1
2 the type of paper company that owns forests and large pulp
3 mills and makes writing paper, or anything like that. It
4 makes scientific and technical papers, including some filter
5
  papers.
      And back in the period '52 to '56, as you've heard, a
6
7 subsidiary of Hollingsworth and Vose made the filter
8 material that was sold to Lorillard and was used on the Kent
9 cigarettes that had asbestos material. That filter material
10 made by Hollingsworth and Vose had some amount of
11 Crocidolite asbestos by design, and that's why Dr. Horowitz
12 is claiming against Hollingsworth and Vose.
13
       How did this paper come into being? As you know,
14 we've got to go back in time in this case. We've got to go
15 back to World War II. During the Second World War, it was
16 learned that the Germans had very superior gas masks to the
17 Allied forces, which was obviously of great concern.
       As luck would have it, the British captured several
18
19 gas masks, and they sent some to the United States to be
   analyzed and tested, and a joint project was begun by the
20
21 Army Chemical Corps and the Naval Research Laboratory in
22 Washington, D.C., in which they attempted to make the gas
23 mask filter paper equal to or better than the German paper.
       What they did was they took the German paper apart and
24
25 they found it had Crocidolite asbestos, and they found it
26 was a very, very efficient filtering agent. So efficient,
27
   it filtered out everything that came through it.
       So what the Naval Research Lab did was it tried to
28
Page No.
           410
1 find paper mills that could help it manufacture similar, if
2 not better, paper. And there was a young research chemist
3 at the lab named Harold Knudson. You heard about him during
4 Ms. Chaber's presentation. He contacted Hollingsworth and
5
  Vose.
6
      There were a lot of paper mills in New England at that
7
  time, and we were one of them. He developed a gas mask
8 filter paper that filtered out everything that came through.
9 After the war, Hollingsworth and Vose manufactured all the
10 filter paper containing Crocidolite asbestos in the Army and
11 the Navy.
12
      During those years, the same paper had other
13 applications. It was used, for instance, in the atomic
14 energy plants to filter out radiation. It was used to
15 filter hospital operating rooms. And, in fact, it was used
16 by the Department of Defense to hang from planes in the
17 upper atmosphere to detect radiation from Soviet bombs, and
```

18 that's how, in fact, they had a hydrogen bomb. All back in 19 the '40s and '50s. 20 This was a military secret. In fact, it was 21 classified information for some period of time. In 1951, it 22 was declassified. It came to the attention of Lorillard, 23 and Lorillard contacted Hollingsworth and Vose and asked 24 whether the filter media could be modified for use in the 25 cigarette. 26 This filter, as I've told you, filtered out everything 27 that came through. In fact, it was called, as a result, an 28 absolute filter. You couldn't put an absolute filter on a Page No. 411 1 cigarette, because all that would come through would be hot 2 air, no tar and no smoke. So what they did, they had to modify it to let some of 4 the cigarette smoke through, and that's what they did. 5 Research and development was done and by March, February of 6 1952, they were manufacturing the filter material. And they 7 did that until not 1957, until May of 1956. 8 At that time Lorillard, called them and said: We 9 found an alternate supplier, a different filter altogether, 10 as you've heard, and they canceled the contact. And that 11 was the ends of the business relationship between 12 Hollingsworth and Vose and Lorillard. 13 So where does that bring us? Well, Dr. Horowitz says 14 now that he smoked those cigarettes and they caused his 15 disease. So let me take up the first points. 16 When the evidence will show you is that when 17 Dr. Horowitz tells you he smoked Kent cigarettes before May 18 of 1956, he is mistaken. Mr. Ohlemeyer laid that out for 19 you in some detail, and I won't go back over it. There will be a lot of different evidence and, in a 20 21 way, it's a kind of a case within a case. You have to look 22 at what Dr. Horowitz says, and you have to look at it 23 carefully. You have to look at how he says it is and what 24 he says, and you have to look in particular of how he 25 describes the cigarettes and, in particular, how he anchors 26 his memory. 27 I'm not going to lay it all out now, because he's 28 going to take the stand, or he's going to testify, or we are Page No. 412 1 going to see his videotape and you'll see what I mean. Look 2 at his testimony carefully and you will see that he is 3 mistaken when he tells you he smoked Kent cigarettes. 4 Now, in this case, in addition, we are going to have a 5 lot of expert testimony. We are going to have expert 6 testimony, in particular, about the Kent cigarette, the 7 filter and what, if anything, came out. Plaintiffs told you about Dr. Longo. Dr. Longo's 9 going to come, he's going to describe the two experiments to 10 you, and what he did. As Mr. Ohlemeyer told you, he tested 11 nine cigarettes in 1991. And he did not use, as has been 12 conceded, standard protocol to do it. Ms. Chaber told you 13 some of the reasons why Dr. Longo told you he did not use 14 standard protocol. The evidence will show you the reason 15 was he wanted to find a way to get asbestos out of those 16 cigarettes. Then what he did, after Mr. Ohlemeyer asked him some 17 18 questions, Mr. Ohlemeyer said he got mad. And he got some 19 more of the cigarettes, he found three more, and he tested 20 those. And he tested one in January of '94 and two in 21 September of '94, and in time to account for one criticism 22 out of a whole abundance of criticisms.

To account for one criticism only, namely that he 23 24 didn't use the standard smoking machine, he used the smoking 25 machine the second time -- and you'll hear, by the way, all 26 the criticisms of Dr. Longo's testimony when he takes the 27 stand under cross-examination, principally by Mr. Ohlemeyer, 28 but some by me. Page No. 413 Now, what happened when Dr. Longo tested using the 1 2 standard smoking machine was this. Mr. Ohlemeyer stole my 3 thunder a little bit, but that's okay. The thing is, 4 counsel for the plaintiff told you that when he did the 5 second test, he had a little bit lower quantities of 6 asbestos. Well, he didn't, as you will see when you listen to 7 8 the evidence, he didn't have a little bit lower. He had 9 one-fiftieth of what he had the first time. That evidence 10 and the rest of the cross-examination of Dr. Longo will show 11 you that Dr. Longo's test is not a credible, scientific 12 experiment on these cigarettes. 13 We are going to have an expert case, as well. We are 14 going to call several experts in who studied asbestos for a 15 very, very long time. It's going to be a joint experts case. I'm not going to call a separate set of experts. 16 17 Mr. Ohlemeyer will call them, he'll examine them, and I may 18 have a few questions. 19 I'd like you to understand, it's a joint case. They 20 are my experts, as well. Just because I don't call them, I 21 don't want -- don't misunderstand me. They are both of our 22 experts, and those experts are going to address themselves 23 to the question of could any asbestos that came out of that 24 filter cause Dr. Horowitz's disease. It's a fundamental 25 question in the case, and those experts are going to address 26 it directly. They are going to tell you two things. I'm not going 27 28 to repeat what Mr. Ohlemeyer told you about thresholds, but Page No. 1 they are going to tell you all about it. They are going to 2 tell that you this one idea of one asbestos fiber, maybe 3 sometimes when you got it, could give you mesothelioma is 4 not scientifically correct. They will tell you that all the evidence suggests that 6 whether by fiber burden or by other analysis, looking at what has happened in the past, that there is a threshold 7 8 below which you will not get mesothelioma. There may be 9 some uncertainty about it as to the various ways you 10 calculate it, but it is there. And then they will tell you that no matter what you do 11 12 with Dr. Longo's number, even if you believe Dr. Longo's 13 numbers, he is below the threshold. And he's not a little 14 below the threshold, he is way below the threshold. That 15 evidence will prove to you that the Kent cigarette with the 16 asbestos-containing filter did not, in any event, cause 17 Dr. Horowitz's disease. 18 I wanted to touch on one other point, which is this 19 idea that we are going to go back in time and we are going 20 to look to see what was known about asbestos. Let me 21 suggest to you that this is not an area where you can accept 22 generalities. You have to look for specifics. And when a witness takes the stand and he testifies 23 24 about this area and he says: Oh, I think this was known, or 25 I think that was known, look for the specifics. Because the 26 specifics are, as Mr. Ohlemeyer alluded to, that asbestosis, 27 a lung disease akin to coal miners' black lung disease -- a

28 long-term occupational exposure disease came to be known in Page No. 415 1 the early decades of this Century, and it was studied 2 because it came in certain places. What happened, by the middle of the Century, people 4 felt they knew what was a safe level of asbestos exposure. 5 Not for people out in the atmosphere walking in the streets, they didn't concern themselves with that, and they didn't 7 concern themselves with consumer products. They concerned 8 themselves with what happened in asbestos textile mills, 9 people handling raw asbestos and breathing uncontrolled 10 emissions. By the end of the Century you will hear people 11 felt, scientists felt, industrial hygienists felt they knew 12 what was a safe level. 13 And they have a number called five million particles 14 per cubic foot of air, and they came up with it, an 15 organization that concerned itself with these things, and 16 you'll hear about this, came up with this characterization 17 in 1946, and they said two things. They said: We think 18 this will protect workers if they are exposed at this level 19 for their whole working lives, people working with asbestos, and we think this number is based upon the best available 20 21 scientific evidence. But we are going to check it every 22 year. At least, we are going to try to check it every year; 23 some issue as to whether they did. 24 Do you know when they changed the number? They didn't 25 change it in 1956. They didn't change it in 1966. They 26 changed it in 1971 or 1972. Not until then did people 27 finally come to the realization, frankly, that the number 28 they adopted all those decades ago was wrong. Page No. 416 1 And it took studies like Dr. Wagner's study in 1960. 2 He connects mesothelioma to asbestos. Studies done in New 3 York, published in New York in 1964 that showed shipyard 4 workers were getting asbestosis. The number they came up with in 1946 was grossly wrong, and it took a long time to figure out. And all of this deals with people who were 7 occupationally exposed to asbestos. So I ask you, when you 8 listen to the evidence from what was known back then, don't 9 accept generalities, look for the specifics. Let me close up. I know you've listened to over two 10 11 hours of closing arguments, so I'll wrap it up and make two 12 points. 13 You've been told the plaintiff goes first, and listen 14 to all the evidence, but it's terrifically important to do 15 that, not least because we go second, and so I'd like you to 16 listen to it before you consider the case as a whole, but 17 I'd also like you to consider the fact that much of our 18 evidence is going to come in during the plaintiffs' case, 19 principally on cross-examination. When we get up to 20 examine, we are making points that are directly important to 21 our case. 22 Finally, let me point out to you that anyone can file 23 a lawsuit if they feel they have been injured. And that's 24 fair enough. That's the way it works. 25 MS. CHABER: I would object, Your Honor. I think we 26 are in closing argument. I think Counsel didn't state that, 27 and maybe he confused himself when he was doing that. 28 THE COURT: You're not supposed to put in argument, Page No. 417 1 you're supposed to be talking about what you're going to MR. BRAKE: Thank you, Your Honor.

The fact of the matter is that we are here now and we 5 are going to test this case in these next two weeks. Listen 6 to the witnesses and to what the witnesses say -- not to 7 pejorative characterizations -- to what the witnesses say. At the end of the case, we will submit two 9 propositions to you: Dr. Horowitz did not smoke Kent 10 cigarettes before 1956, and the Kent cigarettes did not 11 release sufficient asbestos to cause any harm to 12 Dr. Horowitz. And on the basis of that, we will ask you to 13 return a verdict in favor of Hollingsworth and Vose. 14 Thank you very much. 15 THE COURT: Thank you very much, Counsel. Ladies and gentlemen, those are the opening 16 17 statements, and we will now take the evening recess until 18 tomorrow morning at 9:00 o'clock. 19 Please bear in mind the fact that you are not to 20 discuss the case, either amongst yourselves or with anyone 21 else. If anyone attempts to discuss the case with you, 22 please advise the Court of that fact. 23 Also, you are not to look for anything in connection 24 with this case or talk to anybody about it or ask any 25 questions or read anything or look at any pictures or do any kind of an investigation in any way whatsoever connected 26 27 with this case. You may leave your notebooks right on your chairs 28 Page No. 1 there, and they will be there tomorrow morning. Please come 2 back tomorrow morning at 9:00 o'clock. See you then. (Whereupon, court was in recess.) 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28